

Trade, Fiscal and Welfare Considerations of the Carifroum- EU EPA: A Caricom Perspective

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Format

- ▶ Introduction and context of discussion
- ▶ Definitions
- ▶ Methodologies used
 - ▶ Comparisons
- ▶ Simulations / Results
- ▶ Conclusions

Introduction

- ▶ Generally researchers sought to profile the impact of a change in policy, such as the implementation of a trade agreement, on trade, economic welfare and government revenues.
 - ▶ The models applied in these studies can be categorized generally as general equilibrium models or partial equilibrium models.
- ▶ Partial equilibrium models compare trade creation and trade diversion effects as a basis for the measurement of welfare and changes in fiscal revenue.

Table 4: CARIFORUM-EU Impact Assessment Studies on CARIFORUM Economies

Author / Study	Methods	Trade Bloc / Country	Main Findings
Nicholls et al. (2001)	Almost Ideal Demand System (AIDS)	CARICOM	The conclusion of the research is that the smaller economies within the Caribbean Basin would experience greater loss in fiscal revenues than the MDCs in the region.
Greenaway and Milner (2004)	Partial Equilibrium Analysis	CARICOM	CARICOM economies are expected to experience intra and extra regional trade diversion effects which negatively impact of overall welfare levels.
Preville (2006)	Mixed methods – assessment of reports and documents. Stakeholder interviews and focus groups	Windward Islands	Windward islands are likely to experience a fall un tariff revenues if trade with the EU is liberalised.
Gomez (2007)	Mixed methods – assessment of reports and documents. Stakeholder interviews and focus groups. Institute of Development Studies methodology	Belize	Belize is expected to experience some degree of welfare loss as a result of intra-regional trade diversion but this is expected to be low given that CARICOM is not a major trading partner of Belize.
Hosein (2008)	Partial Equilibrium Model	T&T	T&T economy experienced a loss in welfare in the EPA environment. Between 1998 and 2005 the welfare loss declines.
Marshall et al. (2009)	Dynamic Partial Equilibrium Model	Jamaica	Simulation impact on GDP, Imports, Inflation and Revenues were minimal.
Mahabir (2011)	Gravity Model	CARICOM	The LDCs within CARICOM have been able to benefit from the EPA. The MDCs within CARICOM however have not been able to use the preferential access under the Agreement to effectively penetrate the EU market.
Hosein, Khadan and Satnarine-Singh (2013 unpublished study)	Mixed methods – trade competitiveness, variance decomposition and partial equilibrium analysis	CARIFORUM	The results of this study indicate that the Dominican Republic is more likely to benefit from the EPA than the CARICOM economies.
Lorde and Alleyne (2016)	Partial Equilibrium Model using TRIST	Barbados	The overall trade and development impacts of the EPA on Barbados are expected to be small.

Source: Authors' Compilation

Measuring the Economic Impact of a Trade Agreement

- ▶ The economic literature on international economics proposes that the implementation of a trade agreement has three types of impacts.
- ▶ In the context of the CARIFORUM – EU EPA these are described as
 - ▶ *Trade Displacement Effect* – occurs when trade within the CARIFORUM declines in the context of the EPA
 - ▶ *Trade Diversion Effect* - occurs when trade from extra regional partners (outside of the CARIFORUM-EU EPA) falls.
 - ▶ *Trade Creation Effect* - occurs when trade with the EU increases.

Methodological Comparisons

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	Greenaway and Milner	WITS / SMART	TRIST
Model	Imperfect substitution based on Armington Theory	Imperfect substitution based on Armington Theory	Imperfect substitution based on Armington Theory
Input data	SITC 2 digit	HS data (up to 6 digit)	HS data (up to 8 digit) ISIC data can also be used
Number of Markets Considered	3 – Partner Country, EU and Non-EU Rest of the World	2 – EU and the Non-EU Rest of the World	The system can consider up to 14 trade blocs (including ROW)
Import Demand Elasticities	Estimates provided by Stern et al 1974	Empirically estimated for each country up to HS 6 digit level – (Kee et al 2008)	Use a default of 0.5
Import Source Substitution Elasticities	Global Trade Analysis Project (GTAP) behavioral parameters (Hertel et al 1997)	Uses a default of 1.5	Use a default of 1.5
Elasticity of Supply	Not empirically considered by Greenaway and Milner but the model framework assumes that supply is infinitely elastic	Uses a default of 99 representing infinite elasticity of supply	Not explicitly considered but implicitly assumes infinite supply.

Our Work and Theirs.....

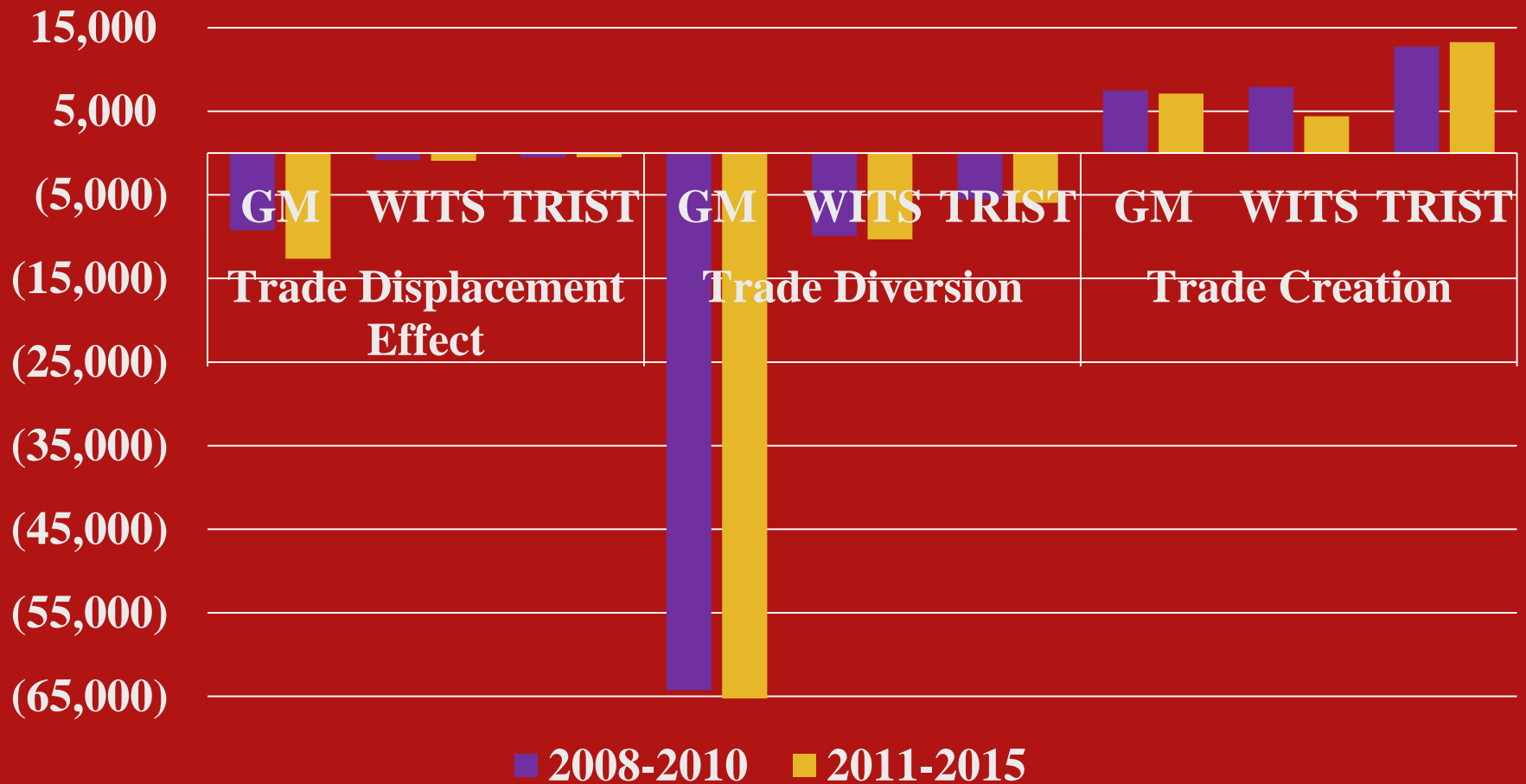
- ▶ Hosein (2008) in evaluating the impact of the EPA on the T&T economy, applying the Greenaway and Milner framework, found that for 2005 trade creation amounted to EC\$266.8mn (US\$98.81), with trade displacement and trade diversion being EC\$86.1mn (US\$31.89mn) and EC\$5507.7 (US\$2,039.89) mn. With the application of the Greenaway and Milner (2004) parameters, for 2008 trade creation amounted to US\$161mn, with trade displacement and trade diversion being, US\$37.69 and US\$3278.3mn.
- ▶ In 2013, the UWI evaluated the impact of the EPA using a host of complementary methods, one of which focused on the impact on trade and welfare using a partial equilibrium model. For this aspect of the study, the authors used the SMART framework. The findings are summarized in the Table below.

Change in Export Revenue of Specific CARICOM Economies (US\$m)		
	Non- EU ROW	EU
Guyana (2011)	-10.41	37.75
St. Kitts (2009)	-1.84	4.11
St. Lucia (2007)	-4.63	12.48
Barbados (2007)	-21.24	56.94
Source: UWI (2013)		

- ▶ Lorde and Alleyne (2016), applied the TRIST methodology to Barbados to evaluate the impact of the EPA on the trading performance of that economy. The authors used 2013 data and found that
 - ▶ Trade diversion from CARIFORUM amounted to BD\$0.44mn (US\$0.22mn) and from the rest of the world BD\$7.62mn (US\$3.81mn). In this paper, Barbados' trade diversion from CARIFORUM was estimated at US\$0.22 mn and from the rest of the world at, US\$5.5mn.

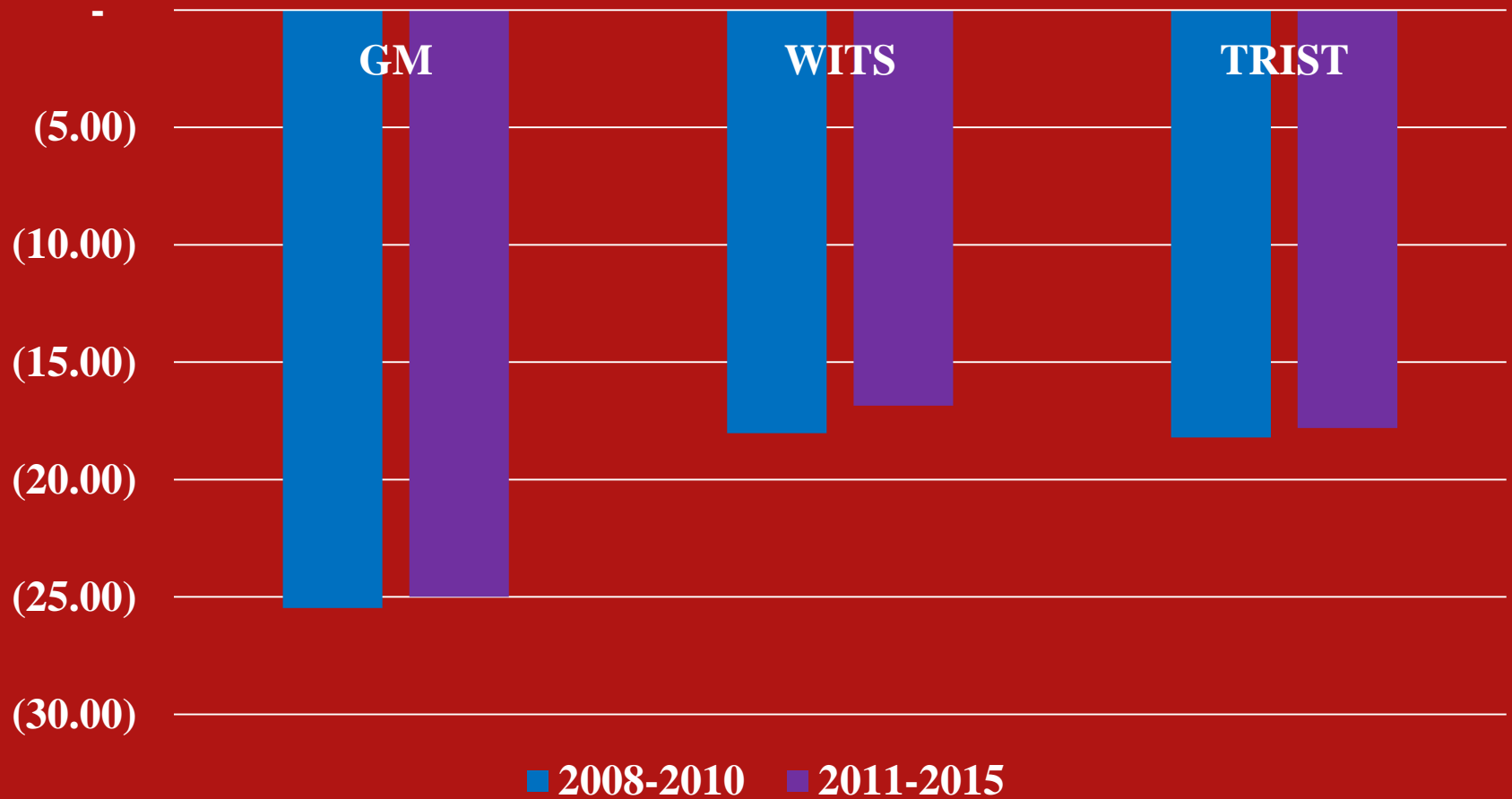
Results: Trade Effects

Average CARICOM Trade Displacement, Trade Diversion and Trade Creation (000 US\$)



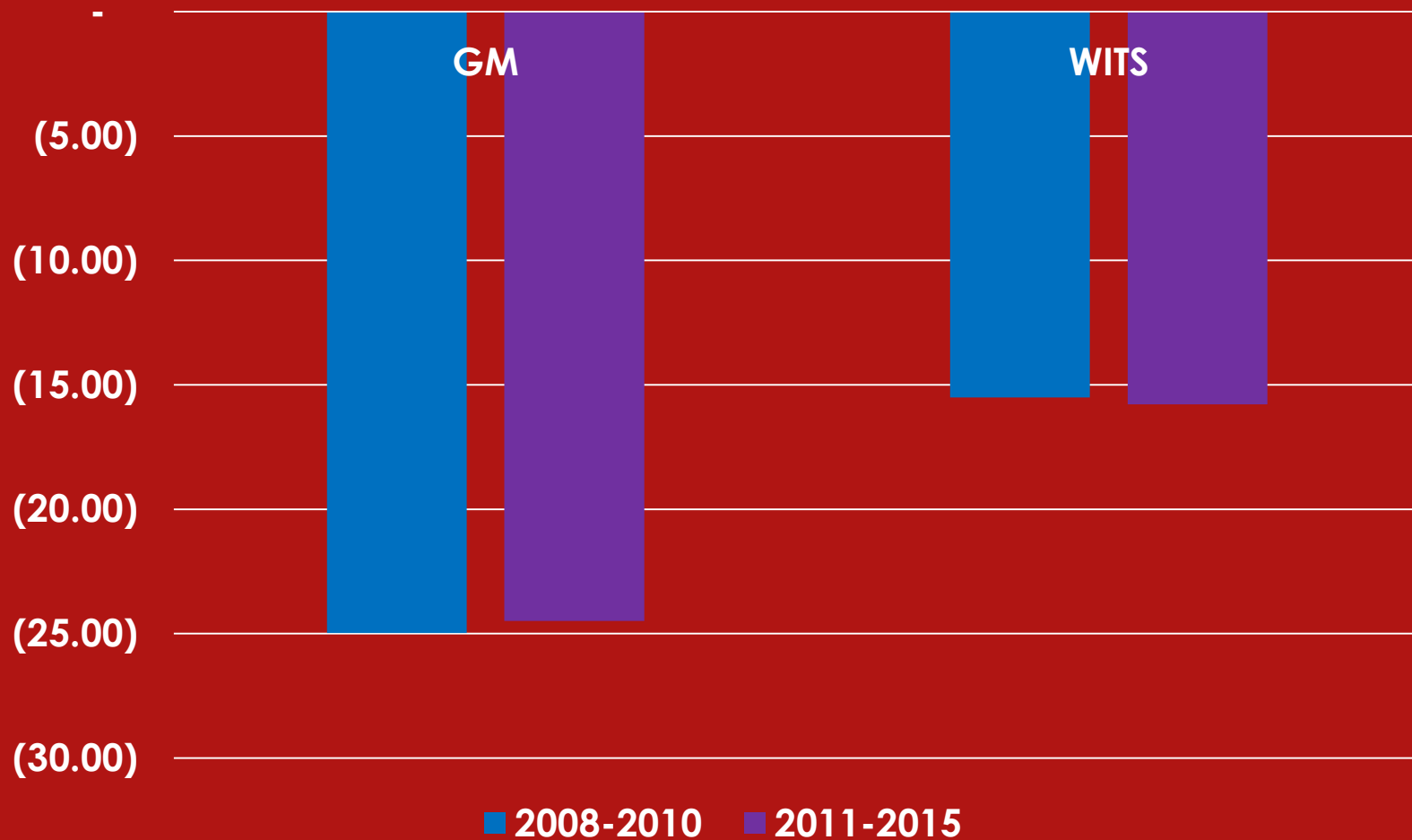
Results: Fiscal Effects

Average CARICOM Loss in Fiscal Revenue (US mn)



Results: Welfare Effects

Average CARICOM Welfare Loss



Conclusions

- ▶ Though the results vary in terms of magnitude across the methods, the simulation results in general point to the same conclusions;
 - ▶ While trade with the EU is expected to rise, imports from CARIFORUM and from the Non-CARIFORUM – EU are expected to fall.
 - ▶ With particular reference to the likely fall off in imports from CARIFORUM, the goal of the EPA to encourage intra-regional trade can be questioned.
 - ▶ The results show unambiguously that the EPA is welfare reducing for CARICOM economies, and that the adjustments for the same are non-negligible.

Conclusions

- ▶ CARICOM economies, must consider other revenue generating interventions for the short to medium term period.
 - ▶ This must be done in the context of understanding the structural rigidities of these economy which slow its response to changes in the international markets.
- ▶ The region as a whole can also leverage the support facilities on offer as part of the EPA itself.
- ▶ The regional should actively continue to engage trade agreements with traditional and emerging non-CARIFORUM EU trade partners.

*Thank you for your
attention
Questions and Comments*